- 2. (Amended) A pair of nucleic acid probes of comparable size, [each preferably being] said size being selected from the group consisting of from 1 to 100 kb, [more preferably each being] from 1 to 10 kb, [or] 7 to 15 kb, [or] 10 to 20 kb, [or] 10 to 30 kb, [or] 20 to 40 kb, [or] 30 to 50 kb, [or] 40 to 60 kb, [or] 50 to 70 kb, [or] 60 to 80 kb, [or] 70 to 90 kb, [or] and 80 to 100 kb, and flanking a potential breakpoint in a chromosome, which pair of nucleic acid probes hybridize to [said] a nucleic acid molecule at a genomic distance of from about 50 kb to no more than 100 kb[, but preferably no more than 50 kb].
- (Amended) [A] The pair of nucleic acid probes of comparable size [according to] of claim 1 which pair of nucleic acid probes hybridise to [said] nucleic acid molecule at a genomic distance of from about 50 kb to no more than 100 kb[, but preferably no more than 50 kb].
- 4. (Amended) [A]The pair of nucleic acid probes [according to anyone of claims 1 to 3]of claim 2, each of said pair of nucleic acid probes being labelled directly or indirectly with at least one reporter molecule.
- 5. (Amended) [A] The pair of nucleic acid probes [according to] of claim 4 wherein the at least one reporter molecule is selected from the group consisting of enzymes, chromophores, fluorochromes, and haptens [(such as biotin or digoxygenin)].
- 6. (Amended) [A]The pair of nucleic acid probes [according to any of claims 1 to]of claim 5 [characterized in that]wherein the probes hybridise to a single corresponding nucleic acid molecule.
- 7. (Amended) [A]<u>The</u> pair of nucleic acid probes [according to]<u>of</u> claim 6 wherein the single corresponding nucleic acid molecule is at least a tragment of a chromosome.
- 8. (Amended) [A]The pair of nucleic acid probes [according to]of claim 7 wherein the chromosome is not aberrant.
- 9. (Amended) [A] The pair of nucleic acid probes [according to any of claims 1 to 8] claim 1 which hybridise in situ.
- 10. (Amended) [A]The pair of nucleic acid probes [according to any of the claims above]of claim 9 which pair of probes each hybridise in situ under low-stringent conditions to only a few linear DNA molecules per cell.

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 11. (Amended) [Use] A method of detecting a nucleic acid molecule having a chromosomal -aberration, said method comprising using of [a]the pair of nucleic acid probes of claim 1 [according to any of claims 1 to 10 for the detection of a nucleic acid molecule comprising a chromosome aberration] to analyze a sample believed to contain nucleic acid.

12. (Amended) [Use of a] A method of detecting cells suspected of having a chromosomal aberration, said method comprising analyzing said cells or said cell's nucleic acid with the pair of nucleic acid probes [according to any of claims 1 to 10 for the detection of cells comprising a chromosome aberration] of claim 1.

Please cancel claim 13.

14. (Amended) [Use of a pair of nucleic acid probes according to any of claims 11 to 13] The method according to claim 11 wherein the [chromosome] chromosomal aberration is related to a malignancy.

15. (Amended) [Use of a pair of nucleic acid probes] The method according to [any of claims 13 to 12] claim 12 wherein the [chromosome] chromosomal aberration is related to a hematopoietic malignancy.

16. (Amended) A diagnostic kit comprising at least [a]the pair of nucleic acid probes [according to any of claims 1 to 10]of claim 1.

Please add the following new claims:

The pair of nucleic acid probes claim 1 wherein the probes hybridise to a single corresponding nucleic acid molecule.

- The pair of nucleic acid probes of claim 17 wherein the single corresponding nucleic acid molecule is at least a fragment of a chromosome.
 - 19. The pair of nucleic acid probes of claim 18 wherein the chromosome is not aberrant.
- 20. The pair of nucleic acid probes claim 3 wherein the probes hybridise to a single corresponding nucleic acid molecule.